DEPARTMENT OF THE NAVY
HEADQUARTERS UNITED STATES MARINE CORPS
WASHINGTON, DC 20380-0001

MCO 1543.13
C2I
9 Jun 93

MARINE CORPS ORDER 1543.13

From: Commandant of the Marine Corps
To: Distribution List

Subj: MATERIEL FIELDING PLAN FOR THE MANPORTABLE SOLAR PANEL SYSTEM (MSPS)

Encl: (1) Materiel Fielding Plan for the Manportable Solar Panel System

1. Purpose. Enclosure (1) is provided as information and instructions concerning the fielding of the MSPS.

2. Information. The MSPS is a lightweight, rugged, compact solar panel assembly that will improve the Marine Corps' reconnaissance capabilities by providing a less detectable, manned and unmanned nondepleting natural energy source to power rechargeable batteries. All components that makeup the MSPS are U.S. Army provided government furnished equipment and have National Stock Numbers.

3. Action. The commanders of each organizational element concerned shall ensure implementation of the provisions of this Order.

4. Reserve Applicability. This Order is applicable to the Marine Corps Reserve.

J. A. BRABHAM
By direction

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MATERIEL FIELDING PLAN

FOR THE

MANPORTABLE SOLAR PANEL SYSTEM

1. Introduction. Initial Operational Capability for the Manportable Solar Panel System (MSPS) is FY 93, desired Full Operational Capability is FY 93.

a. Source of Requirement. The Required Operational Capability #INS 211.4.1 designated a requirement for the Marine Corps to provide a lightweight, reusable source of electricity to power battery powered equipment. The power source is required to be lightweight, compact, rugged, low maintenance, reliable, and capable of operation in all reconnaissance environments. The power source should not require any external energy source other than what is naturally provided, must operate very silently, visually blend with the surroundings, and release a minimal amount of electromagnetic emissions. It must be easy to use, require minimal training, be capable of charging batteries or provide direct power to electronics equipment, and must be compatible with the reconnaissance unit's Load Bearing Equipment.

b. Points of Contact

Name	Command/Telephone
LtCol R. Biddle	PROJECT OFFICER MSPS MARCORSYSCOM (C2IA) 2033 BARNETT AVE SUITE 315 QUANTICO VA 22134-5010 DSN: 278-2912/4 COML: (703) 640-2912
Maj K. Thompson	ILS OFFICER MSPS MARCORSYSCOM (C2IL) 2033 BARNETT AVE SUITE 315 QUANTICO VA 22134-5010 DSN: 278-2234 COML: (703) 640-2234

Mrs. S. Baron LOGISTICS MANAGEMENT SPECIALIST
MSPS
MARCORSYSCOM (PSE-P)
2033 BARNETT AVE SUITE 315
QUANTICO VA 22134-5010
DSN: 278-4476
COML: (703) 640-4476

Mr. T. Reynolds INVENTORY MANAGER
MSPS
MARCORLOGBASES
(CODE 845-2)
ALBANY GA 31704-5000
DSN: 567-5421
COML: (912) 439-5421

c. Fielding Methodology

(1) General Fielding Plan. The MSPS will be fielded vertically in order that the units with the highest priority receive the MSPS first. See appendix A for the list of Allowances and Delivery Schedule. See appendix B for the Schedule of Events.

(2) Method of Fielding. The initial issue quantities of the MSPS will be "force fed." The MSPS will be shipped complete to include the associated Technical Manual (TM).

d. Replaced Systems/Equipment. The MSPS is not replacing any system or components.

2. System Description

a. Administrative Information

(1) Nomenclature. Manportable Solar Panel System (MSPS)

(2) TAMCN. H2420

(3) Stores Account Code (SAC). 1

(4) National Stock Number (NSN). The overall MSPS does not have an NSN, however the NSN's of the individual components are as follows:

(a) Solar Cell Panel 6117-01-313-4794

(b) Adapter, Power Supply 6130-01-312-7945

(c) Cable, 24-Volt	5995-01-318-0649
(d) Cable, 12-Volt	5995-01-318-0648
(e) Cable, Parallel	5995-01-318-0650
(f) Bag, Solar Panel Assemblage	6130-01-312-7954

(5) Unit of Issue. Each

(6) Unit Cost. $1294 (est)

(7) Support Cost. None

(8) Petroleum, Oil, and Lubricants. N/A

(9) Equipment Density. Normal

(10) Readiness Reporting. N/A

b. Physical Characteristics

	Operational Configuration	Storage/Shipping Configuration
(1) Length	14 in	14 in
(2) Width	13 in	13 in
(3) Height	6 in	6 in
(4) Square	182 in(2)	182 in(2)
(5) Cube	1,092 in(3)	1,092 in(3)
(6) Weight	6.5 lbs	6.5 lbs
(7) Stowage	1,092 in(3)	1,092 in(3)
(8) Power Requirements	Solar	Solar

c. Operational Characteristics. The MSPS is an assembly of solar panels, cables and a power supply adapter that generates power to recharge various batteries currently used in communication/electronics equipment. The MSPS is lightweight, easily transportable, and requires minimal maintenance.

d. Associated Systems/Equipment. The MSPS works independent of any other items of equipment.

3. Logistic Support

a. Maintenance Support. Because of the simplicity of maintenance actions required to maintain the MSPS, no maintenance plan will be necessary. Maintenance includes first and second echelon.

(1) First Echelon. First echelon maintenance will be conducted by the owning/using unit. It includes the proper care, cleaning, storage, operation, replacement of component items, preservation, lubrication, adjustment, and operational checks as prescribed by appropriate user manuals and TM's.

(2) Second Echelon. Second echelon maintenance will consist of performing continuity checks on the components of the MSPS to ensure it is properly functioning. A multimeter (TAMCN H2336) is needed to perform the checks. The steps are specified in the TM.

(3) Third Echelon. None

(4) Fourth Echelon. None

(5) Fifth Echelon. None

(6) Calibration Requirements. The Marine Corps Test Measurement Diagnostic Equipment (TMDE) Calibration and Measurement Program has been developed to provide and maintain prescribed accuracies in standards of measurement and to ensure satisfactory performance of all Marine Corps TMDE at posts and stations in the Fleet Marine Force (FMF), per MCO 4733.1A. The Power Supply Adapter requires calibration every six months by an authorized calibration facility.

b. Contractor Support Requirements

(1) Depot Support. Tobyhanna Army Depot is the system integrator for the MSPS. Management responsibility will shift to the Defense Logistics Agency (DLA) after delivery of the MSPS.

(2) Interim Contractor Support. None

c. Manpower, Personnel, and Training

(1) Manpower Requirements. No additional manpower is required.

(2) Personnel or Maintenance Requirements. No new Military Occupational Specialty (MOS) requirements are necessary for operation of the MSPS. Each MSPS can be operated by one Marine with any MOS. A Ground Radio Repairer (MOS 2841) can perform maintenance on the system.

(3) Training Requirements. No formal training will be required. Users will be trained on location via on-the-job training or while attending the Amphibious Reconnaissance School/Course (ARS/C). Two units will be provided to LFTCLant and LFTCPac for familiarization purposes.

(4) Training Support Items. None

d. Supply Support

(1) Provisioning. Each of the components have NSN's and the Marine Corps has requested to become registered users. An overall MSPS NSN is pending assignment from the Marine Corps. The Primary Inventory Control Agent will be the U.S. Army, who will manage the separate components and the Marine Corps will manage the overall MSPS.

(2) Replenishment

(a) The Marine Corps will acquire 30 spare MSPS's which will be held in protective stock at MARCORLOGBASES, Albany, GA, and Barstow, CA. Using units are to submit off-line Military Standard Requisitioning and Issue Procedures requisitions to the Commander, Marine Corps Logistics Bases (COMMARCORLOGBASES) (MF), Albany, GA.

(b) In FY 94, DLA will pickup the replenishment responsibility for both the Army and the Marine Corps. Owning units can submit supply requisitions via the local Supported Activity Supply System Management Unit to receive individual components:

Nomenclature	Part No.	NSN	Source of Supply (SOS)
Solar Cell Panel	A3154192	6117-01-313-4794	S9E
Bag, Solar Panel Assemblage	A3154193	6130-01-312-7954	S9G
Adapter, Power Supply	A3154194	6130-01-312-7945	S9G
Cable, 12-Volt	A3154196	5995-01-318-0648	S9G
Cable, 24-Volt	A3154197	5995-01-318-0649	S9G
Cable, Parallel	A3154198	5995-01-318-0650	S9G

(c) The following addresses should be used when requisitioning from the SOS:

SOS Code	Address
S9E	DESC Dayton OH//DESC/OSRC// DEFENSE ELECTRONICS SUPPLY CENTER 1507 WILMINGTON PIKE DAYTON OH 45444
S9G	DGSC RICHMOND VA//DGSC/OSC// DEFENSE GENERAL SUPPLY CENTER RICHMOND VA 23297

(d) Since the MSPS is a SAC 1 item, using unit are required to budget and expend their own Operations and Maintenance Marine Corps (O&MMC) funds for replenishment.

(3) Government Furnished Equipment (GFE). No GFE is being provided by the Marine Corps.

e. Support Equipment

(1) Special Tools. N/A

(2) Common Tools. N/A

(3) Special Purpose Test Equipment. N/A

(4) General Purpose Test Equipment. A multimeter (TAMCN H2336) is required to conduct continuity checks on the system.

(5) Test Program Sets. None

(6) Other Support Equipment. None

f. Technical Publications

(1) A U.S. Army TM (TM 11-6130-479-12&P) is available and will be overpacked with the MSPS. The Marine Corps has attached an addendum page which indicates areas in the TM which do not apply to the Marine Corps. The Marine Corps has assigned a Publication Control Number of 35162777000 to the TM. The TM contains a parts section, therefore an SL-3 is not needed. In the event there is a discrepancy between the TM and the Materiel Fielding Plan (MFP), this MFP has precedence.

(2) A DA 2028-2 Form (Recommended Changes To Equipment Technical Publications) should be completed when a deficiency in the TM is found. The form is located at the back of the TM, and should be submitted per the instructions on the form.

g. Computer Resources Support. None

h. Facilities

(1) Existing Facilities. Existing facilities will be used to store and maintain the MSPS's at the owning units.

(2) New Facilities. None

(3) Interim Facilities. In order to meet the replenishment requirement in paragraph 3d(2), a small amount of storage space is required at the Maintenance Floats (MF) at MARCORLOGBASES, Albany and Barstow. Each MF will initially store fifteen MSPS's and replenish the FMF until FY 94.

i. Packaging, Handling, Storage, and Transportation

(1) Packaging. Each of the MSPS components will be packaged in soft cardboard, wrapped in bubble wrap, and then placed in a larger cardboard box for shipping. Using units should discard the packaging material and place all components in the Solar Assemblage Bag after inspecting each component and determining that no damage has occurred during shipping. The Solar Assemblage Bag is a modified flight bag. It is lightweight, durable, and water resistant.

(2) Handling. There are no special handling requirements for the MSPS.

(3) Storage. There are no special storage requirements for the MSPS.

(4) Transportation. The MSPS can be transported using any means of transportation. It must be able to withstand impact from shock during transport.

j. Warranties. There are no warranties on any of the components of the MSPS.

4. Actions Required to Place Equipment In service

a. Commanders, MARFORLANT and MARFORPAC

(1) Ensure that the ARS/C provides the necessary attention to familiarize the students with the operation of the MSPS.

(2) Grant approval to subordinate units to place the MSPS into service once the requirements of paragraph 4b(3) have been accomplished.

b. Gaining Command

(1) Material Defects Reporting. If any of the components in the MSPS are missing or arrive damaged, a SF 368 Quality Deficiency Report should be submitted to the following address via the COMMARCORLOGBASES (845-2), Albany, GA:

CDRCECOM (AMSEL-RD-SOF)
U.S. ARMY ELECTRONICS COMMAND
ATTN: Mr H HAMMER
FORT MONMOUTH NJ 07703-5000

(2) Obtaining Supporting Consumables. All of the items in the MSPS are nonrepairable, consumable items. Owning units must budget and spend their own O&MMC funds to receive replacement components or MSPS's.

(3) Request approval from the appropriate Commander, MARFORLANT or MARFORPAC after the requirements as specified in paragraph 3202.2, Placing New Equipment In service, on page 3-17 of MCO P4105.3 have been accomplished.

(4) Follow the replenishment procedures as described in the Supply Support section of this Order (paragraph 3d(2)).

LIST OF ALLOWANCES AND DELIVERY SCHEDULE

SPECIAL DISTRIBUTION FOR EQUIPMENT OR REPAIR PARTS

T/E	NAME OF UNIT	No. Units	QTY	Planned FY 93 Qtr 1 2 3 4
5980	Phib Recon Scol, LFTCLant	1	2	2
5981	Phib Recon Crs, LFTCPac	1	2	2
7011 (MF)	MCLB, Barstow, CA	1	15	15
7014 (MF)	MARCORLOGBASES, Albany, GA	1	15	15

ACTIVE FORCES

T/E	NAME OF UNIT	No. Units	Unit QTY	Planned FY 93 Qtr 1 2 3 4
N1412	Recon Co, Inf Regt, 1st MarDiv	2	9	18
N1422	Recon Co, Recon Bn, 2d MarDiv	2	9	18
N1432	Recon Co, Inf Regt, 3d MarDiv	2	9	18
B1432	Recon Co, 3d Mar Regt, 3d MarDiv	1	6	6
N1462	Recon Co, LAR Bn, 1st MarDiv	4	6	24
N1472	Recon Co, LAR Bn, 2d MarDiv	4	6	24
N1485	LAI Co, CSG, 3d MarDiv	1	6	6
N4618	For Recon Co, 1st SRIG	1	21	21
N4718	For Recon Co, 2d SRIG	1	21	21
N4818	Det For Recon Co, 3d SRIG	1	12	12
N4637	HQSVC Co, 1st Radio Bn	1	14	14
N4737	HQSVC Co, Radio Bn, 2d SRIG	1	10	10
N4654	ANGLICO, 1st SRIG	1	17	17
N4754	ANGLICO, 2d SRIG	1	17	17

RESERVE FORCES

T/E	NAME OF UNIT	No. Units	Unit QTY	Planned FY 93 Qtr 1 2 3 4
N1442	A Co, Recon Bn, 4th MarDiv	1	3	3
N1442	B Co, Recon Bn, 4th MarDiv	1	2	2
N1442	C Co, Recon Bn, 4th MarDiv	1	3	3
N1442	D Co, Recon Bn, 4th MarDiv	1	2	2
N1442	E Co, Recon Bn, 4th MarDiv	1	2	2
M4623	4th For Recon Co, Recon Bn, 4th MarDiv	1	11	11
M4623	3d For Recon Co, Recon Bn, 4th MarDiv	1	10	10
P4852	ANGLICO, Reserves	2	6	12
			Total:	305

SCHEDULE OF EVENTS

EVENT	DATE
National Stock Number Assigned	1st Qtr FY 92
Materiel Fielding Plan Publication	3rd Qtr FY 93
Production/Assembly Began	3rd Qtr FY 92
Began Fielding	1st Qtr FY 93
Initial Operating Capability	1st Qtr FY 93
Initiating Service Date	1st Qtr FY 93
Full Operational Capability	1st Qtr FY 93